ABSTRACT OF THE DISCLOSURE

A method of producing a photovoltaic element is provided which comprises the steps of immersing in an electrolytic solution a photovoltaic element comprising a back surface reflecting layer, a 5 semiconductor layer and a transparent electrode layer successively stacked on a substrate, applying a forward voltage to the photovoltaic element to effect an electrolytic treatment to reduce the transparent electrode layer in a short-circuit portion of the 10 photovoltaic element, thereby selectively removing a short-circuit current path in the photovoltaic element due to a defect, wherein a voltage gradient when the forward voltage applied to the photovoltaic element is lowered to 0 V or a such forward voltage 15 as to effect no reduction reaction of the transparent electrode layer is controlled to be -15 V/s to -0.1V/s, whereby a shunt portion is selectively removed with reliability without increasing a shunt path.